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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/840,588	04/23/2001	Gang Wang	15-751 - 4254	3809

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WATTS, HOFFMANN, FISHER & HEINKE CO., L.P.A.
Ste. 1750
1100 Superior Ave.
Cleveland, OH 44114

EXAMINER	
LESNIEWSKI, VICTOR D	

ART UNIT	PAPER NUMBER
2155	

DATE MAILED: 08/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/840,588	WANG, GANG	
	Examiner	Art Unit	
	Victor Lesniewski	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 April 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☒ Claim(s) *6,26 and 27* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6/5/2001*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This application has been examined.

2. Claims 1-33 are now pending.

Information Disclosure Statement

3. The IDS filed on 6/5/2001 has been considered.

Claim Objections

4. Claims 6, 26, and 27 are objected to because of the following informalities:

- Claim 6 contains a typographical error where there is no period at the end.
- Claim 26 makes claim for a process while claim 27 makes claim for "the method of claim 26." This set of claims is inconsistent in terminology where either a process or a method should be used throughout.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 26 and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 26 appears to recite a process for maintaining a product-by-process. Although the product-by-process is described, claim 26 contains no limitations as to the

process of maintaining this product thereby rendering the scope of the claim unascertainable. For the purpose of applying prior art the product-by-process will be considered. Claim 27 is rejected due to its dependence on claim 26.

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claims 16-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 16-18 recite data structures not claimed as embodied on a computer readable medium and/or data structure per se. Here, there is no definition of any structural and functional interrelationships between the data structure and the other claimed aspects which would permit the data structure's functionality to be realized. Such claimed data structures do not constitute eligible subject matter for patentability. See MPEP 2106.IV.B.1(a).

10. Claims 19-25 and 28-33 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 19-25 and 28-33 recite descriptive material that may or may not be an embodiment of a computer system or embodied on a computer readable medium so as to be executable. Here, a machine readable medium does not does not suffice as computer readable or a computer program product and does not constitute eligible subject matter for patentability. See MPEP 2106.IV.B.1(a).

11. For the purpose of applying prior art it will be assumed that claims 19-25 and 28-33 recite a computer readable medium.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 1-15 and 19-33 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Bonnell et al. (U.S. Patent Number 5,655,081), hereinafter referred to as Bonnell.

14. Bonnell has disclosed:

- <Claim 1>

  Apparatus for monitoring multiple computing devices coupled to a network comprising: a) a management computing device having software for monitoring multiple monitored computing devices that are coupled to a network, said management computing device including an aggregator component that accumulates information regarding the multiple monitored computing devices (figure 1, item 10); b) a video display for displaying a result from the aggregator component (column 2, lines 43-51); c) a plurality of monitored computing devices coupled to the management computing device by means of the network to enable information regarding the monitored computing devices to be determined by the aggregator component of said management computing device (figure 1, item 14

and column 1, lines 54-57); and d) each of said plurality of monitored computing devices implementing a schema for responding to queries by the aggregator component by providing an access point to information about the monitored computing devices (figure 3 and column 5, lines 16-23).

- <Claim 2>

  The apparatus of claim 1 additionally comprising one or more client computing devices coupled to the management computing device by means of the network and wherein the video display is coupled to one of the client computing devices (column 2, lines 2-5).

- <Claim 3>

  The apparatus of claim 1 wherein the schema includes a class hierarchy of managed elements and wherein an access point instance is created for each monitored computing device to provide a means of monitoring managed elements of a associated monitored computing device (column 4, lines 30-56 and column 3, lines 59-63).

- <Claim 4>

  The apparatus of claim 3 wherein a web element class is defined that is instantiated to include web elements contained within a monitored computing device (column 4, lines 42-56).

- <Claim 5>

  The apparatus of claim 1 wherein each of the monitored computing devices includes a data repository and wherein the schema defines a manner in which data

is entered into the data repository when the monitored computing device is added to the network (column 9, line 61 through column 10, line 10).

- <Claim 6>

  A method for monitoring and configuring multiple computing devices coupled to a network comprising: a) providing a management computing device having software for monitoring multiple other computing devices, said management computing device including an aggregator component that accumulates information regarding the multiple other computing devices (figure 1, item 10); b) connecting a plurality of other computing devices to the management computing device by means of a network to enable information regarding the other computing devices to be determined by the aggregator component of said management computing device (figure 1, item 14 and column 1, lines 54-57); c) accessing the results provided by the aggregator and updating an output for conveying information about the multiple other computing devices based on a result from the aggregator component (column 2, lines 43-51); and d) maintaining a data repository on each of the other computing devices that is based on a monitoring and control schema for providing information to the aggregator component (column 9, line 61 through column 10, line 10).

- <Claim 7>

  The method of claim 6 wherein the monitoring and control schema defines a class hierarchy of elements that depend from a base class and include an access point for examining elements for a given one of said other computing devices (column 4, lines 30-56 and figure 18).

- <Claim 8>

  The method of claim 7 wherein the monitoring and control schema defines elements that are associated with other elements by means of a containment association (column 11, lines 2-9).

- <Claim 9>

  The method of claim 7 wherein the monitoring and control schema defines elements that are related to each other by events transmitted to the aggregator component by a user interface (column 13, line 63 through column 14, line 12).

- <Claim 10>

  The method of claim 9 wherein the events are initiated by a client computing device coupled to the management computing device by means of a network connection (column 13, lines 7-9).

- <Claim 11>

  The method of claim 6 wherein the aggregator component accesses, in sequence, multiple other computing devices coupled to the network (column 14, lines 1-7).

- <Claim 12>

  The method of claim 6 wherein the monitoring and control schema is a class hierarchy of elements that depend from a base class and wherein the aggregator component associates one or more result elements with an event, and for each of said one or more result elements, the aggregator determines if the result element has an aggregate association with other elements (column 11, lines 23-41 and 56-67).

- <Claim 13>

  The method of claim 12 wherein the aggregator component traverses multiple layers of elements to determine aggregate associations between elements (column 11, lines 23-26).

- <Claim 14>

  The method of claim 13 wherein for each element the aggregator component obtains data from a data property for that element and uses the data format property of said element to format data from the data property (column 4, lines 4-29).

- <Claim 15>

  The method of claim 14 wherein the data property is an SQL string which the management component executes for an associated other computing device on the network (column 4, lines 13-17).

- <Claim 19>

  A machine readable medium including instructions for monitoring multiple computing devices coupled to a network, said medium including instructions for: a) providing an aggregator component on a management computing device that accumulates information regarding a multiple number of other computing devices (figure 1, item 10); b) obtaining information regarding the other computing devices for use by the aggregator component of said management computing device (figure 1, item 14 and column 1, lines 54-57); c) updating an output for conveying information about the multiple other computing devices based on a result from the aggregator component (column 2, lines 43-51); and d) said

obtaining step performed by instructions that access data from a data repository on each of the other computing devices that is based on a monitoring and control schema for providing information to the aggregator component (column 9, line 61 through column 10, line 10).

- <Claim 20>

  The machine readable medium of claim 19 wherein the monitoring and control schema defines a class hierarchy of elements that depend from a base class which the aggregator component accesses by means of an access point for examining elements for a given one of said other computing devices (column 4, lines 30-56 and figure 18).

- <Claim 21>

  The machine readable medium of claim 20 wherein the monitoring and control schema defines elements that are associated with other elements by means of a containment association (column 11, lines 2-9).

- <Claim 22>

  The machine readable medium of claim 20 wherein the monitoring and control schema defines elements that are related to each other by events transmitted to the aggregator component of the management computing device by means of a user interface component of said management computing device (column 13, line 63 through column 14, line 12).

- <Claim 23>

  The machine readable medium of claim 19 wherein the aggregator component accesses, in sequence, multiple other computing devices coupled to the network (column 14, lines 1-7).

- <Claim 24>

  The machine readable medium of claim 19 wherein the monitoring and control schema is a class hierarchy of elements that depend from a base class and wherein the aggregator component associates one or more result elements with an event, and for each of said one or more result elements, the aggregator determines if the result element has an aggregate association with other elements (column 11, lines 23-41 and 56-67).

- <Claim 25>

  The machine readable medium of claim 19 wherein for each element the aggregator component obtains data from a data property for that element and uses the data format property of said element to format data from the data property (column 4, lines 4-29).

- <Claim 26>

  A process for maintaining a data repository structure for storing data corresponding to a schema for defining relations between objects of a computing device coupled by means of a network to a management computing device, said data repository structure derived from a compilation of a managed object format language rendering of the schema, said rendering including a) defining a base class of type management element (figure 18, item 262); b) deriving a first

derived class having elements that depend from the base class of type management element, said first derived class elements having attributes comprising a display format and a display name (figure 18, item 264 and column 9, line 65 through column 10, line 2); and c) defining an on event class that defines a source and result relationship between two objects of the type management element (column 10, lines 16-38).

- <Claim 27>

  The method of claim 26 additionally comprising defining an aggregate class that defines elements having a parent and child relation between instances of the management element type object (column 11, lines 23-41).

- <Claim 28>

  A machine readable medium including instructions for monitoring multiple computing devices coupled to each other by means of a network , said medium including instructions for: a) monitoring multiple computing devices by providing an aggregator component on a management computing device that accumulates information regarding multiple other computing devices (figure 1, item 10); b) obtaining information regarding the other computing devices for use by the aggregator component of said management computing device (figure 1, item 14 and column 1, lines 54-57); c) generating a visual output for conveying information about the multiple other computing devices based on a result from the aggregator component formatted according to data maintained on a data repository on each of the other computing devices that is based on a monitoring and control schema for providing information to the aggregator component

(column 2, lines 43-51 and column 9, line 61 through column 10, line 10); and d) monitoring inputs from a user interface to enable the management computer to update data stored in the data repository of one or more of said other computer devices (column 2, lines 5-16 and column 13, line 63 through column 14, line 12).

- <Claim 29>

  The machine readable medium of claim 28 wherein each of the other computing devices includes different types of managed elements and wherein instructions implementing the aggregator component obtains data from a data property for a managed element and uses the data format property of said managed element to format data for presentation on the visual output (column 4, lines 4-29).

- <Claim 30>

  The machine readable medium of claim 28 wherein the monitoring and control schema defines a class hierarchy of managed elements that depend from a base class and include an access point and wherein the medium includes instructions enabling the aggregator to examine elements within the hierarchy for a given one of said other computing devices (column 4, lines 30-56 and figure 18).

- <Claim 31>

  The machine readable medium of claim 30 wherein the monitoring and control schema defines managed elements that are associated with other managed elements by means of a containment association and wherein the instructions that implement the aggregator component examine in a recursive manner managed elements contained within other managed elements (column 11, lines 2-9 and column 14, lines 1-7).

- <Claim 32>

  The machine readable medium of claim 28 wherein the monitoring and control schema stored on the other computing devices defines managed elements that are related to each other by an on event association between managed elements and where an event is initiated at the user interface and evaluated by the aggregator component of said management computing device (column 10, lines 16-38 and column 13, line 63 through column 14, line 12).

- <Claim 33>

  The machine readable medium of claim 28 wherein the monitoring and control schema is a class hierarchy of managed elements that depend from a base class and wherein the aggregator component associates one or more result managed elements with an event, and for each of said one or more result managed elements, the aggregator determines if the result managed element has an aggregate association with other managed elements (column 11, lines 23-41 and 56-67).

Since all the limitations of the invention as set forth in claims 1-15 and 19-33 were disclosed by Bonnell, claims 1-15 and 19-33 are rejected.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure.

- McChesney et al. (U.S. Patent Number 5,857,102) disclosed a method for determining and manipulating configuration information of servers.

- Hayes, Jr. (U.S. Patent Number 6,105,066) disclosed a client/server system with central application management.
- Coelho et al. (U.S. Patent Number 6,128,016) disclosed a graphic user interface for managing a server system.
- Haggard et al. (U.S. Patent Number 6,148,335) disclosed a method of monitoring a computer network by collecting resource data from a plurality of servers.
- Callsen et al. (U.S. Patent Number 6,438,616) disclosed a method for creating fast, local-only objects in a distributed client/server based computing system.
- Meek et al. (U.S. Patent Number 6,539,426) disclosed a method for managing the operation of servers in a distributed computing environment.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor Lesniewski whose telephone number is 703-308-6165. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on 703-308-6662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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VL

Victor Lesniewski
Patent Examiner
Group Art Unit 2155

HOSAIN ALAM
SUPERVISORY PATENT EXAMINER